# REMARKS

No new matter has been added by any of the above amendments, and thus, the Examiner is respectfully requested to enter the amendments.

The specification has been amended at the beginning of page 1 to reflect, as requested by the Examiner, that priority U.S. Patent Application No. 09/459,443, filed December 13, 1999, is now U.S. Patent No. 6,638,906, issued October 28, 2003.

Claims 1-32 are canceled. Claims 48-60 and 65-69 are withdrawn. Claims 33 - 43, 46, 47 and 61 - 64 are pending in the application and are re-numbered above, respectively as claims 36 – 46, 47, 48, and 62 – 65, which is what the Examiner indicated in paragraph 3 of the Office Action. Claim dependency has also been appropriately re-numbered.

With regard to the Examiner's informality objection and suggestion to reword each of independent method claims 36 and 62 to begin with "A method for releasing cholecystokinin peptide in a subject", applicant has instead clarified independent method claims 36 and 62 by rewording the beginning of each as "A method for treating obesity by releasing cholecystokinin peptide in a subject".

Also, applicant has amended each of independent method claims 36 and 62 in order to clarify that the inventive method comprises (A) administering a "polypeptide-oligomer conjugate" and (B) "inducing satiety, whereby food intake is reduced" since upon administration to the subject, the conjugate binds with a target receptor, thereby providing release of cholecystokinin "peptide".

Support for the amended language in independent method claims 36 and 62 comes from the paragraph lines 13 – 15 of page 3 and the paragraph at lines 16 – 21 of page 6 of applicant's specification.

Additionally, new dependent claims 71 and 72, directed to administering comprising orally administering, have been added. Support for orally administering comes from the paragraph at lines 14 – 18 of page 32 of applicant's specification.

*CLAIM DISPOSITION*

Thus, as per the re-numbering pursuant to 37 CFR 1.126, claims 36 – 48 and 62 – 65 are under examination, and claims 49 – 61 and 66 – 70 are withdrawn from further consideration pursuant to 37 CFR 1.12(b), as being drawn to a non-elected invention.

*SEQUENCE COMPLIANCE*

I hereby state the content of the Sequence Listing information in the computer readable format is identical to the paper copy of the Sequence Listing, both submitted with the filing of the original application on August 4, 2003. I also hereby state as required under 37 C.F.R. § 1.821(h) that the content of the Sequence Listing information in the computer readable format and the paper copy of the Sequence Listing, both submitted on August 4, 2003, contain no new matter, nor do they go beyond the disclosure of the application as filed.

Applicant respectfully requests that the present application be amended to incorporate the Sequence Listing. A separate transmittal letter was enclosed on August 4, 2003 for the compact disk in accordance with 37 C.F.R. § 1.52(e).

*OATH/DECLARATION*

The Examiner objected to the Oath/Declaration because a non-initialed/non-dated alteration was made in the citizenship for the inventor. A fresh executed Declaration is enclosed. Accordingly, the Examiner is respectfully requested to withdraw the objection.

***EXAMINER'S REJECTION UNDER 35 USC § 102(b) OF CLAIMS 36 AND 62 AS BEING ANTICIPATED BY SPANNAGEL, ET AL.***

The Examiner stated that no claims are allowable, and cited Spannagel, et al. for teaching a method of administering LCRF (luminal cholecystokinin releasing factor), and thus, the Examiner rejected claims 36 and 62 under 35 USC § 102(b) in view of Spannagel, et al., stating that the method claimed is directed to one step, namely administration of LCRF.

Applicant respectfully notes, as is well known, that for a reference to be a reference under any part of § 102, that reference, by itself, must teach each and every element of the claimed

invention. This is not achieved by Spannagel, et al., by itself, and hence, the Examiner is respectfully requested to withdraw the rejection for the following reasons.

Summarily, the reason is that Spannagel, et al. merely teach administration of naturally occurring LCRF, whereas the presently claimed method is directed to treating obesity by administration of a LCRF polypeptide-oligomer conjugate.

Applicant respectfully point outs that the LCRF administered to the rats, as shown in Spannagel, et al., was naturally occurring LCRF that was obtained from the rats' intestinal secretions, and then infused intraduodenally into the rats.

Not only is there no disclosure in Spannagel, et al. of applicant's conjugate, but also there is no disclosure in Spannagel, et al. of treating obesity, i.e., causing subjects to feel satiated so that they reduce food intake.

As discussed in the "Background" section of applicant's specification, on pages 3 and 4, administration of naturally occurring LCRF is well known. Hence, Spannagel, et al. are merely cumulative to what applicants already discussed in their specification.

That administration of naturally occurring LCRF is not useful for weight control is also discussed in applicant's specification.

More specifically, as discussed in the last full paragraph on page 6 and the paragraph bridging pages 39 – 40 of applicant's specification, LCRF is naturally secreted in the duodenum and is physiologically regulated by proteolysis, particularly by trypsin, both in the gut and the bloodstream. When food is absent, naturally occurring LCRF is degraded by proteases in the duodenum. Hence, the transient nature of naturally occurring LCRF is a major barrier to its use as a therapeutic in weight control.

Thus, for naturally occurring LCRF, when administered to a subject, to remain intact and bind to the CCK-releasing cell, i.e., causing CCK release and satiety, the subject must also ingest protein or trypsin inhibitors.

In other words, a subject has to eat in order for the naturally occurring LCRF to work in causing satiety. In the absence of the subject eating, the naturally occurring LCRF cleaves instead of binding to the CCK-releasing cell, and the subject will not feel satiety. Thus, administration of naturally occurring LCRF is *not* a viable obesity treatment method for subjects to induce satiety, and thereby reduce food intake, helping a subject in weight control.

On the other hand, the conjugate administered to a subject in the present method is not simply a type of naturally occurring LCRF, but rather is a LCRF polypeptide-oligomer conjugate.

When the conjugate is administered to a subject, the subject does not have to eat to feel satiety. Hence, administration of the conjugate is a viable obesity treatment method for subjects to induce satiety, and thereby reduce food intake, so that the administration of the conjugate helps in weight control.

As discussed in the paragraph at lines 16 – 21 of page 6 of applicant's specification, the LCRF conjugate is protected from proteolytic digestion by the presence of the oligomer in the conjugate, so that the conjugate, unlike naturally occurring LCRF, is useful in treatment of obesity. By the conjugate being protected from proteolytic digestion is meant that the conjugate is protected for a sufficient amount of time for the conjugate to integrate into a cell membrane of the gut epithelium of the subject, so that the conjugate retains the capacity to bind to the LCRF receptor on CCK cells, thus, causing CCK release and satiety, so that the subject reduces food intake. That protection is for a sufficient amount of time, for instance 40 minutes in a preferred embodiment, is described at the top of page 41 of applicant's specification, where it is noted that, in a preferred embodiment, the conjugates experience less than 70% proteolysis upon exposure to serine proteases at pH 7.4 for 40 minutes, and the enteric coated conjugates experience less than 10 % proteolysis upon exposure to simulated gastric fluid for 40 minutes, such exposures being analogous to exposure in the gut.

The point is for the subject to be administered the conjugate, and have a feeling of satiety, from the conjugate binding on a cell and providing release of CCK, without the subject having to eat in order to achieve that feeling of satiety. Thus, if a subject is overweight, the subject is able to reduce food intake, and thus, control his/her weight.

## CONCLUSION

Based on the foregoing discussion, applicant respectfully submits that the pending claims are now in condition for allowance. The Examiner is respectfully requested to withdraw the informality objection to the specification and the claims and to withdraw the 35 USC § 102(b) rejection of the claims, in view of Spannagel, et al..

Also, the Examiner is requested to accept the fresh Declaration (attached to the Amendment dated February 2, 2006 and received February 6, 2006), and requested to accept the sequence compliance statement submitted here.

If any issues remain outstanding incident to the allowance of the application, the Examiner is requested to contact the undersigned attorney.

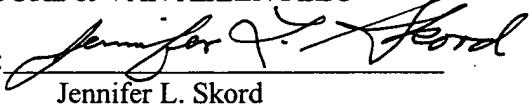
## DEPOSIT ACCOUNT

Although it is believed that no fee is due at this time, the Commissioner is authorized to charge any deficiencies, or to credit any overpayment, associated with this Communication, to **Deposit Account No. 13-4365.**

Respectfully submitted,

MOORE & VAN ALLEN PLLC

Date: February 28, 2006

By: 

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Encl. with Amendment dated February 2, 2006 and received February 6, 2006: Executed Declaration